



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 29 1992

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1-29-92
652BB

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: Applicator and Resident Exposures for a Permethrin Home Owner Product

TO: Linda Arrington/George LaRocca, PM-13
Registration Division (H7505C)

FROM: Flora Chow, Chemical Manager 7. Chow 27 Jan 92
Reregistration Section
Science Analysis and Coordination Branch
Health Effects Division (H7509C)

THROUGH: William Burnam, Acting Chief
Science Analysis and Coordination Branch
Health Effects Division (H7509C)

W. Burnam
1/22/92

HED Project No.: 1-2567
Caswell No.: 652BB
Action: 165 New Product

Please find, attached to this memo, the OREB review of the new product "Insect Killer Cockroach Carpet".

The review by TB-1 will be forwarded to you separately.



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MEMORANDUM:

Subject: Applicator and Resident Exposures for a Permethrin Home Owner Product.

From: John, Tice, Biologist
Special Review and Registration Section II
Occupational and Residential Exposure Branch
Health Effects Division (H7509C)

To: Flora Chow,
Science Analysis and Coordination Branch
Health Effects Division (H7509-C)

Thru: Mark I. Dow, Ph.D., Section Head
Special Review and Registration Section II
Occupational and Residential Exposure Branch
Health Effects Division (H7509C)

Thru: Charles L. Trichilo, Ph.D., Chief
Occupational and Residential Exposure Branch
Health Effects Division

Please find below, the OREB review of:

HED Project No.: # 1-2567

Caswell No.: 652 BB

Pesticide Chemical Code:

EPA Reg. No.: 050654-U

EPA MRID No.:

Review Time: 2 days

I. INTRODUCTION:

The Occupational and Residential Exposure Branch (OREB) has been asked to prepare an exposure assessment for a proposed new product of permethrin. The new product is a Permethrin-impregnated carpet insecticide. Permethrin is impregnated on a 1 square meter plastic sheet which is affixed to cardboard. The "carpet" is placed under appliances or other places where children and pets are not able to reach. Product instructions include precautions about handling the carpet by the protective edges. The square is coated with a total of 0.926 grams of permethrin (or 9.26 mg/cm²).

II. CONCLUSIONS:

Since the applicator and residents in the house/restaurant will not come into contact with the active ingredient, OREB is not requesting exposure data. When used as directed, applicators and residents should not be exposed to permethrin.

III. DISCUSSION:

Theoretical exposures are negligible, however minimal accidental exposure is possible. Depending on packaging and the nature of the media holding permethrin on the plastic, some dried permethrin may be dislodged during shipment and handling. Additionally, accidental touching or scratching the surface may also dislodge permethrin and result in exposures proportional to the surface contacted. These exposures are expected to be minimal.

If two "big thumbs" (surface area of 10 cm²) are placed on the media and all of the permethrin is transferred to the thumbs, the exposure would be 0.9 mg permethrin. Assuming one application per year, 100% dermal absorption and 70 kg body weight for an adult, the total exposure would be 0.01 mg/kg/yr.

cc: Circulation
Correspondence File
Chemical File